



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

WORK OF THE OFFICE OF FARM MANAGEMENT RELATING TO LAND CLASSIFICATION AND LAND TENURE

BY W. J. SPILLMAN

United States Department of Agriculture

It is an old saying that foresight is better than hindsight, but it is not in the nature of most men upon whom problems of immediate importance are pressing to neglect those for others, however important, that relate only to the future. Considering the pressure under which most of us work, it is not surprising that we do not attempt to cross bridges before we come to them.

Until recently we have had in the West what the general public thoughtlessly regarded as an inexhaustible supply of the richest farming land in the world. It was a common saying that "Uncle Sam is rich enough to give us each a farm." It was, of course, realized that sometime the free lands would become exhausted, but this was a problem of the future with which future generations could deal when they came to it.

I do not mean to imply that here and there discerning individuals did not foresee the necessities that would soon arise as the result of land shortage. But a few individuals urging upon the people the necessity for action, the need for which is not generally apparent, can usually accomplish little. They can, however, disseminate knowledge that will be highly useful when the occasion for its use becomes apparent to all, so that a problem that suddenly becomes pressing need not necessarily be wholly new and unexpected.

As long as the prospective farmer could, by moving a few days' journey to the westward, acquire a farm on virgin soil for practically nothing, it was not possible for farm lands already settled to have a market value commensurate with the security they offer to the investor; nor could there arise a problem of tenantry, for tenants were in position to exact considerate treatment. It was so easy for them to become owners that they had all the advantage in bargaining with landlords.

The virtual exhaustion of the public domain so far as good farm lands are concerned has changed all this. During the decade ending with 1910 farm lands increased in market value per acre 108 per cent, in spite of the fact that most of the new farm lands

were intrinsically less valuable than the older lands. Part of this increase was doubtless due to rise in price of farm products, but only part, for the average increase in prices of such products was only 67 per cent. The other important factor was the increased demand for improved farm land on the part of those who in former times would have taken up new land. But even the 67 per cent rise in prices of farm products was itself due mainly to shortage of land. The area devoted to crops for which acreage is reported increased during the last three census periods at percentage rates of 32, 29, and 10 respectively. During the last period the increase was only about one-third what it had been previously. It is true that production per acre is improving, but not at a rate sufficient to compensate for per capita decrease in crop area.

The bearing of all this is evident. We have come to a period in our national development when land has become the most important limiting factor in the further development of our agricultural resources. It is therefore time to take stock of our resources in land.

In the past, the people of the United States have produced a large amount of wealth per capita annually. The standard of living has therefore been high as compared with the peoples of Europe, where population is relatively larger in comparison with natural resources. It is essential that we defer as long as possible the time when these resources must be subdivided between so many individuals that the individual portion shall be too small to permit a satisfactory standard of living.

Three factors may contribute to this end. First, we may develop latent resources, such as are represented by land yet unimproved but adapted to improvement. Second, we may make more intelligent use of land already in use, and thus increase its output. The remaining alternative is limitation of population.

The last alternative is a subject for the consideration of immigration officials and eugenicists. Increased production per acre is a matter of agronomic research and education. The bringing into use of new areas of land is the meat of the subject before us for consideration here today.

As long as good farm land was abundant and readily available, a knowledge of that fact sufficed. But when we become limited as we now are to lands less easily made available, lands requiring the expenditure of much labor and money in their subjugation, a census of farm land has become imperatively necessary to our continued progress as an agricultural people. This census should

give us information as to the present tenure and use of land, and as to its agricultural adaptability.

In this connection it is of interest to know that the present Director of the Census realizes fully the importance of this work, and has already taken steps looking toward a census both of farm lands and of land not in farms.

While land may be classified in many ways, depending on the purpose the classification is to serve, the important considerations from the standpoint of agricultural resources are present use and natural adaptation. It is much less difficult to secure data on present use of land than on its adaptation to various purposes. The farmer can readily tell you the use he is making of the various parts of his farm. But no one knows very accurately the adaptability of land not already put to agricultural use. Besides, the possibilities of any given land area depend on the degree of intensity of the farming justified by what we may call the economic environment. In Italy, land is used for olive groves or vineyards that in Missouri would hardly be considered fit for goat pasture.

The Office of Farm Management, in analyzing the business of a farm, always secures an account of the use to which the various parts of the farm are put. Years of experience in this work have resulted in the development of a system of classifying farm land that has proven very satisfactory in interpreting the business of the farm. The land classification used in this work, based solely on use, is as follows:

Total area of farm.....	_____
Tillable area	_____
Crop area	_____
Idle or fallow crop land..	_____
Tillable pasture	_____
Woods pastured	_____
Other pasture	_____
Woods not pastured	_____
Other farm land	_____

A committee appointed by the Director of the Census has recommended the use of this system of classification for the census of 1920, and its adoption is, I think, probable. If it is adopted it will give much valuable information. I may add that in planning the campaign last spring for increased production this year, a knowledge of the facts concerning pastures possibly available for crops became evident. The Census Bureau, not being in position to tabulate this material from the last census, very magnanimously

turned all the farm schedules over to the Office of Farm Management and the tabulations were made in time to be of material assistance for fall planting. The results of this tabulation are now in the printers' hands. They show roughly that 36 per cent of the farm lands of this country are in crops, 33 per cent in pasture, and 31 per cent woodland, waste land, etc. Of the pasture land approximately one-third is improved, one-third woodland, and one-third other unimproved pasture.

As many of you know, Mr. O. E. Baker, of the Office of Farm Management, with several assistants and numerous collaborators, is engaged in bringing together an Atlas of American Agriculture. One section of this atlas is devoted to Land Classification and Utilization, and another section to Property in Land. Under the latter heading the principal subdivisions are Land Values, Land Tenures, and Land Policies. We are much pleased to announce that Professor Ely has kindly consented to become responsible for the development of the section on Land Policies.

In the section on Classification of Land, the system of classification adopted is based as largely as possible on the potentialities of the land for agricultural uses. Mr. Baker is now at work assembling the data for a nine section map showing the distribution of the various land areas. The entire map will be 48 by 72 inches. It is realized that this map can be at best a mere approximation until more data can be obtained than are now available. The subdivisions of land to be indicated on the map, as at present agreed upon, but subject to revision, are:

- | | | | | |
|---------------------------------------|---|-----------------------------------|---|-----------------------------------|
| | { | Irrigated | { | In crops |
| | | | { | Wild hay meadows |
| 1. Agricultural land | { | Non-irrigated
crop land | { | Grade A. 1st quality |
| | | | { | Grade B. 2d " |
| | | | { | Grade C. 3d " |
| | | | { | Dry farming land. Moderately dry |
| | | | { | Dry farming land. Rainfall meagre |
| 2. Grazing land | { | Grade A. Good grass land pastures | | |
| | | Grade B. Western ranges | | |
| | | Grade C. Desert land pastured | | |
| | | Sagebrush land pastured | | |
| 3. Forest land | { | Brush land | | |
| | | Woodland | | |
| | | Timberland | | |
| 4. Alpine summits and absolute desert | | | | |

The Office of Farm Management has for several years devoted a part of its energies to a study of methods and cost of bringing stump lands into use as farm land. Several bulletins have been issued on various phases of this subject. Appropriations for this work have recently been discontinued.

Proportion of farm land for crops, pasture, timber, etc.—In coöperation with the Forest Service the Office of Farm Management recently made an extended study of the farm woodlot from the point of view of farm woodlot economy. The object of this study was to ascertain the economic status of the woodlot as a farm enterprise in different sections of the country, particularly the proportion of the farm which should be devoted to this enterprise. The results of this investigation are now practically ready for publication.

The office is also making studies of the economics of pasture land, with a view to ascertaining the proper proportion of pasture land in a well-balanced system of agriculture in different sections of the country.

How farmers acquire their status.—Another problem under investigation by the Office of Farm Management, which has a bearing on the general problem of land tenure in this country, relates to the manner in which the farmers now occupying American farms acquired their present status of tenant or owner. How farm owners in five townships of Warren County, Illinois, acquired their status is shown as follows:

HOW 462 ILLINOIS FARM OWNERS ACQUIRED THEIR FARMS

Stages passed ¹	Inheritance	Marriage	Purchase		Total	Per cent of grand total
			From near relative	From others		
F-H-T-O	2	9	15	74	100	22
O'-H-T-O	—	2	2	2	4	1
F—T-O	35	5	54	56	150	33
O'—T-O	3	—	4	3	10	2
F-H—O	—	15	5	13	33	7
O'-H—O	—	2	—	2	4	1
F—O	77	9	30	18	134	29
O'—O	8	4	5	8	25	5
Total	125	46	115	176	462	100
Per cent of grand total	27	10	25	38	100	

¹ The meaning of the symbols in column 1 is as follows: O = owner; T = tenant; H = hired man; F = work on his father's farm; O' = from other occupations.

It will be noted that 35 per cent of these farmers skipped the hired-man stage, 8 per cent skipped the tenant stage, largely because they married girls who owned farms, while 34 per cent skipped both these stages. Only 23 per cent climbed the entire agricultural ladder. The majority of those who skipped both hired man and tenant stages acquired their farms by inheritance.

These investigations are being widely extended. They include consideration of the length of the various stages through which men pass in becoming farm owners. The field data in this investigation are collected by Mr. H. H. Clark of the Office of Farm Management.

Tenancy.—A number of problems under investigation in the Office of Farm Management involve various phases of the tenancy problem, such as the relation of land prices to rental values, percentage of tenancy, length of time required to acquire ownership, etc.

The lease contract is considered one of the major problems from the standpoint of farm management. Dr. E. V. Wilcox, assisted by Mr. E. A. Boeger and Mr. H. A. Turner, has collected many thousands of these contracts and several publications have already been issued relating to them. Others are contemplated. We are beginning to arrive at a conception of the fundamental idea underlying the lease contract. In many hundreds of cases a careful analysis of the farm business has been made with a view to interpreting the terms of the lease contract in actual income of landlord and tenant.

Ranch Economics.—Another line of work conducted by the Office of Farm Management has an important bearing on the settlement of the range country. Originally, the homestead laws parceled out the land in farm units designed to be suitable for a farm business that would adequately support a farm family. On the assumption that the same principle would result in the satisfactory utilization on a sound economical basis of the range country, the Office of Farm Management is undertaking to determine the optimum magnitude of the ranching business; that is, the magnitude of business of various kinds required for the adequate support of a family. Ranchers measure the magnitude of their business especially by the number of breeding animals in their herds. When once the number of these animals required for a satisfactory business has been determined and the proportion the breeding animals constitute of the entire animal equipment of the

ranch, it is then only necessary to determine the carrying capacity of the available ranges in order to know the area required for a satisfactory business. Methods of analyzing the ranch business are already fairly well understood, and it is believed that the results of this investigation will form an adequate basis for intelligent legislation.

It is of interest to note in this connection that where the public domain is not definitely parceled out among ranchmen and where, in consequence, any stock owner may move his stock to any point on the public domain accessible to him, it is impossible for the ranchman to conserve in any way a supply of range feed for his animals, even for the near future; for any conservation he may practice is as likely to benefit his competitor as himself. Investigations have shown that where the ranchman has complete control over his range and can thus reap the benefits of his own efforts at conservation, the carrying capacity of the range may be greatly increased. It may therefore be assumed that when a proper basis has been determined for legislation on the subject and the range, by some method of leasing, homesteading or otherwise, has been parceled out among ranchmen so that each has exclusive control of his own range, a material increase will result in the amount of stock produced in the range country.

This practically completes the list of studies in progress in the Office of Farm Management bearing on problems of land tenure and land utilization.